

## REMARKS

### Claims 2-4, 6-18, 20-22 and 24:

Claims 2-4, 6-18, 20-22 and 24 are objected to for being dependent on a rejected base claim. The Examiner also indicated that these claims would be allowable if re-written in independent form including all of the limitations of the base claim and any intervening claim (see item 6 of paper 12). Applicant thanks the Examiner for recognizing that these claims are allowable. As discussed in the following section, Applicant respectfully submits that base claims 1, 5, 19 and 23 are also allowable. For this reason, Applicant has not re-written claims 2-4, 6-18, 20-22 and 24 in independent form.

### Claims 1, 5, 19 and 23:

Claims 1, 5, 19 and 23 have been rejected under 35 U.S.C. § 102(e) as being anticipated by PCT Application No. US98/02240 (“Wood PCT”) (see item 5 of paper 12). The Examiner presumably meant to reject claims 1, 5, 19 and 23 under 35 U.S.C. § 102(a) since Wood PCT cannot be used as a 102(e) reference (this case was filed before November 29, 2000, see MPEP § 2136) or a 102(b) reference (this case was filed less than a year after Wood PCT was published).

Applicant is puzzled by this rejection since Wood PCT teaches the exact same invention as another reference that was already relied on by the Examiner and overcome by Applicant, namely U.S. Pat. No. 6,083,123 (“Wood US”). Indeed, Wood PCT claims priority to Wood US and apart from some minor changes in the claims, the texts of the two publications are identical. As discussed below, Applicant therefore again respectfully traverses the rejection. Although it does not appear to be necessary, Applicant also reserves the right to overcome this 102(a) rejection with an Affidavit under 37 C.F.R. § 1.131.

In the previous substantive Office Action (paper 7) the Examiner rejected claims 1-4, 6-18 and 21-24 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,083,123 (“Wood US”) and a secondary reference. Claims 5, 19 and 20 were objected to for being dependent on a rejected base claim but were found to be allowable if re-written in independent form. In response Applicant re-wrote claims 5, 19 and 20 in independent form (see Response filed November 11, 2003). Applicant also disputed the rejection of claims 1-4, 6-18 and 21-24 in light of Wood US. In particular, Applicant noted that Wood US (alone or in combination with

the secondary reference) was deficient in that it did not teach each and every element or limitation of the claims. The Examiner acknowledged these deficiencies in the latest Office Action (see items 4.1 and 4.2 of paper 12) and conceded that claims 1-24 are *not obvious* in light of Wood US. Yet, in the same Office Action (see items 5.1 and 5.2 of paper 12) the Examiner rejects claims 1, 5, 19 and 23 as lacking *novelty* over Wood PCT when this reference teaches the *exact same invention* as Wood US. This makes no sense.

How can the Examiner find claims 5 and 19 to be allowable in light of Wood US (see paper 7) and yet lacking novelty over Wood PCT (paper 12) when both publications teach *exactly* the same invention? Similarly, how can the Examiner state that claims 1 and 23 are not obvious in light of Wood US (see items 4.1 and 4.2 of paper 12) and yet lack novelty over Wood PCT (see items 5.1 and 5.2 of paper 12)? The rejection of claims 1, 5, 19 and 23 should be withdrawn.

To reinforce the fact that Wood PCT and Wood US are one and the same, Applicant has compared the sections of Wood PCT that are referred to in the Examiner's rejection (see items 5.1 and 5.2 of paper 12) with the corresponding sections of Wood US and confirmed that they include *verbatim the same* teachings as follows:

Wood PCT	Wood US
page [1] <sup>1</sup> , lines 1-18	column 1, lines 34-48
page 35, lines 11-27	column 12, lines 29-45
page 4, lines 6-26	column 2, line 66 – column 3, line 20
page 3, lines 4-8	column 2. lines 34-37
page 13, lines 5-7	column 7, lines 19-20
page 4, lines 29-32	column 3, lines 22-25
page 12, lines 15-18	column 6, lines 63-65
page 14, lines 21-23	column 7, lines 65-67
page 26, lines 22-28	column 14, lines 23-30
page 5, lines 5-6	column 3. lines 32-33

<sup>1</sup>The Examiner wrote page 3, lines 1-18

In order to provide a complete Response, Applicant also addresses the Examiner's specific rejections as follows:

*Claims 1, 5, and 19:*

The Examiner argues that Wood PCT discloses a method of designing a customized golf club (page [1], lines 1-18), determining a tempo function (page 35, lines 11-27), relating tempo to club length (page 4, lines 6-26), for a particular golfer (page 3, lines 4-8 and page 13, lines 5-7), shaft flexibility of the club (page 4, lines 29-32), preferred trajectory for a golf ball (page 12, lines 15-18), club head mass (page 14, lines 21-23), and perceived force functions (page 26, lines 22-28). Applicant respectfully traverses this rejection.

First, Applicant notes that claims 1, 5 and 19 of the present application include a step of “determining a tempo function *relating tempo to club length* for a particular golfer”. While the Examiner has found unrelated sections of Wood PCT that include the terms “tempo parameter” (page 35, lines 11-27); “length of each club” (page 4, lines 6-26); and “the golfer” (page 3, lines 4-8), the Examiner does not explain or point out how Wood PCT combines these terms to teach a method that includes a step of “determining a tempo *function relating tempo to club length* for a particular golfer.” The Examiner cannot do this because Wood PCT does not teach such a step.

Second, Applicant can find no teaching in the highlighted sections of Wood PCT (nor in any other section) that relates to a step of “*determining a perceived force function relating perceived force to club length and club head mass for the golfer*” as required in the second step of claims 1, 5, and 19. Page 14, lines 21-23 discusses club *shaft* weight (not club *head* mass) and page 26, lines 22-28 discusses *dynamic loft* (i.e., the *angle* of the club head face at impact, not the *force* that is perceived by the golfer). Absent some explanation from the Examiner, Applicant cannot see how these seemingly unrelated teachings combine to teach a step of “*determining a perceived force function relating perceived force to club length and club head mass for the golfer*.” Clarification or withdrawal of this aspect of the rejection is respectfully requested.

Third, the Examiner provides no indication that the Wood reference teaches a method that includes steps of selecting two design parameters from the group consisting of target distance for the club; club length and shaft flexibility for the club; and preferred trajectory for a

golf ball; and *using the selected design parameters, together with the determined tempo and perceived force functions, to calculate optimum values for the unselected design parameter and the club head mass for the customized golf club.* Absent some explanation from the Examiner, Applicant cannot see how the highlighted sections of Wood PCT combine to teach the latter limitations of claim 1. Applicant also notes that page 4, lines 29-32 discusses the relationship between FITMODEL and SPECPRO (there is no mention of shaft flexibility). Clarification or withdrawal of this aspect of the rejection is respectfully requested.

The Woods reference therefore lacks several elements and limitations of claims 1, 5 and 19. Applicant further notes that the Examiner has not even addressed the limitations of claims 5 and 19 that are not included in claim 1. For all of these reasons, withdrawal of the rejection of claims 1, 5 and 19 is respectfully requested.

*Claim 23:*

With respect to claim 23, the Examiner *only* states that Wood PCT teaches a “limitation of having the golfer swing a test club.” Applicant respectfully notes that claim 23 includes *several* additional steps and limitations that the Examiner does not address. In particular, the Examiner does not point to *any* teachings in Wood that relate to the following steps and limitations of claim 23:

- (1) having the golfer swing a test club *to determine its perceived length;*
- (2) *having the golfer swing a comparison club one or more times while adding weight to the comparison club at a selected point along the shaft until the golfer is unable to distinguish the perceived lengths of the test club and the comparison club;* and
- (3) *determining the center point around which the test club and the weighted comparison club have identical radii of gyration.*

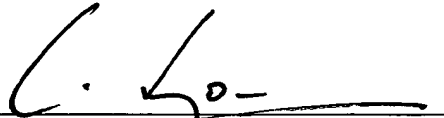
In fact, the concepts of “perceived length” or “radii of gyration” are never discussed by Wood PCT. Clarification or withdrawal of this aspect of the rejection is respectfully requested.

**Conclusion:**

Based on the arguments presented above, it is submitted that the pending claims are allowable over the art of record. Applicant would like to thank the Examiner for his thoughtful comments and careful consideration of the case. Please charge any fees that may be required, or credit any overpayment, to our Deposit Account No. 03-1721.

Respectfully submitted,

Dated: April 30, 2004



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Agent for Applicant  
Limited Recognition Under 37 C.F.R. § 10.9(b)

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